Group ID	Project title	Name and Programme	Project description	Problem statement	Solution overview	Video link
DT26	DIAGSE / Intelligent Tutoring Systems framework	Dineshram S/O M Sukumar; *PGDE 2025* Tan Chih King, Clarence; *PGDE 2025*	This project proposes a teacher-facing framework for designing Intelligent Tutoring Systems (ITS) for classroom use, using History as an illustrative example. It aims to make AI-supported learning design more accessible to teachers without requiring coding expertise.	The proposal addresses the need for a practical way to design AI learning tools that are aligned with learner needs, curriculum outcomes, and assessment requirements. Without such support, AI tools can be difficult to adapt meaningfully for classroom use.	The proposed solution, DIAGSE, is a code-free, AI-supported authoring framework that guides teachers through diagnosing learner needs, identifying content, adapting resources, generating outputs, scaffolding learning, and evaluating progress. It is intended to support the creation of classroom relevant ITS tools.	https://video.nie.edu.sg/media/DT26-+DIAGSE+Intelligent+Tutoring+Systems+framework/0_dnzkdds2
ERS26	AI-Enabled Tamil Reading Companion for Primary Learners (P3–P6)	Eugin Husilda Leo; *PGDE 2025* Rajendran Rajeswari; *PGDE 2025* Smiline Pushpalatha Sudhan; *PGDE 2025*	Tamil Reading AI Assistant is an AI-supported reading coach developed for Primary 3 Tamil students. It provides model reading, guided practice, and feedback to support reading fluency and confidence.	The proposal addresses the challenge that young Tamil learners need more personalised reading support than classroom time typically allows. Students may need repeated practice, clearer models, and immediate feedback to improve their reading independently.	The proposed solution allows students to listen to model reading, read aloud, record themselves, listen back, and receive AI feedback. It is designed to provide personalised practice and self-correction opportunities so that students can improve their reading more independently.	https://video.nie.edu.sg/media/ERS26-+AI-Enabled+Tamil+Reading+Companion/0_9x1e86jm
HTW26	AI-Mind	He Junying; *PGDE 2025* Tang Jing; *PGDE 2025* Wang Fengxia; *PGDE 2025*	AI-Mind is an AI-powered inquiry learning platform that transforms passive reading into active thinking. Through gamified AI role-play and adaptive questioning, students learn not only how to use AI, but how to think with AI. The platform develops questioning, critical thinking, and AI literacy as essential future-ready skills.	Although AI can instantly provide answers, many students lack the ability to ask meaningful questions or critically evaluate AI-generated information. This encourages passive learning and limits deeper understanding. Teachers also cannot provide personalized thinking support for every learner at scale.	AI-Mind combines escape-room gameplay, AI role-play, and scaffolded inquiry to guide students from comprehension to critical analysis and knowledge extension. With adaptive support for different learners, it transforms AI from an answer provider into a thinking partner that develops students' curiosity, self-directed learning, and transferable inquiry skills.	https://video.nie.edu.sg/media/HTW26-+A+I-Mind/0_zaxhiujh
MML26	SG Math Thinking Coach	Mok Zhuang Ying; *PGDE 2025* Ma Swe Zin May Phyo; *PGDE 2025* Lok Si-Chih; *PGDE 2025*	SG Math Thinking Coach is an AI tool designed for Primary 5 mathematics learning. It gives students a visible thinking map on screen so they can make their reasoning more explicit while solving problems.	The proposal addresses the concern that many learning tools simply provide answers rather than helping children understand how they think. Without explicit support, students may struggle to notice their errors, regulate their thinking, and develop stronger problem-solving habits.	The proposed solution presents a guided thinking map that helps students trace their reasoning, identify where they go wrong, and improve through reflection. It aims to strengthen metacognitive skills by making thought processes visible and reusable across tasks.	https://video.nie.edu.sg/media/MML26-+SG+Math+Thinking+Coach/0_d9qpgvel
OBYT26	AIE (AI-Enhanced Instruction)	Tan Eu Gin, David (Chen Youjian); *PGDE 2025* Yow Lu Yee; *PGDE 2025*	This project presents AIE, an AI-supported differentiated instruction concept developed for classrooms with a wide range of learner needs. It focuses on helping teachers personalise instruction more efficiently.	The proposal addresses the difficulty teachers face in providing genuinely differentiated support when students in the same classroom may be working at very different levels. Doing so manually can be time-consuming and difficult to sustain over time.	The proposed solution uses AI to help identify student needs and support teachers in tailoring instruction, practice, and feedback more effectively. The aim is to make differentiated teaching more responsive and manageable.	https://video.nie.edu.sg/media/OBYT26-+AIE+%28AI-Enhanced+Instruction%29/0_gkcy1lwj
OW26	Lenzs	Oh Geng Sheng; *PGDE 2025* Wong Han Yun; *PGDE 2025*	This project introduces Lenzs, a sense-making tool for students' personal development in secondary education, particularly within CCE.	The proposal addresses the problem that student growth is often fragmented across CCE, CCA, ECG, and informal experiences, making it difficult for students and	The proposed solution consolidates reflections and developmental data into one place, allowing patterns and progress to become more visible. It supports both	https://video.nie.edu.sg/media/OW26-+Lenzs/0_a939g0e1

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			It brings together learning, reflection, and developmental evidence across different parts of school life.	teachers to view development holistically. Important reflections can remain dispersed and underused.	students and teachers through formative insight and longer-term sense-making.	
SCK26	iSpeak AI	Syadza Binte Zakariah; *PGDE 2025* Chang Yun; *PGDE 2025* Khor Shihong; *PGDE 2025*	This project presents iSpeak AI, a tablet-based communication app for non-verbal students with physical disabilities. It is designed to help them participate more fully in classroom interaction and school life.	The proposal addresses the limitation of existing communication tools, which are often too slow for real-time classroom participation. This can make it difficult for students to ask questions, contribute to discussions, or socialise with peers.	The proposed solution combines picture and text boards, predictive word suggestions, and multiple access modes such as touch, pictures, and eye-gaze. Its purpose is to speed up communication and strengthen student independence in class.	https://video.nie.edu.sg/media/iSpeak+AI/0_n7gpnml9/-1
SLK26	LIT READER	Leong Yi Wei; *PGDE 2025* Kimberly Tan Peck Rong; *PGDE 2025*	This project presents LIT READER, an AI platform for close reading at the secondary level. It is designed to support Literature learning by helping students read more deeply and think more critically about texts.	The proposal addresses the problem that students often have limited opportunities to practise close reading because of syllabus time constraints. They may struggle to move beyond summary into interpretation, analysis, and evidence-based response, while teachers cannot always provide individual feedback.	The proposed solution acts as an AI companion for close-reading practice, prompting students to think through text rather than simply receive answers. It also provides immediate personalised feedback to support iterative improvement.	
WJD26	GEMS – Guided Evaluation and Mastery of Speech	Wan Kah Wor, Marcus; *PGDE 2025* Joelle Ngo Li Xuan; *PGDE 2025* Dennis Henry; *PGDE 2025*	GEMS is an AI-supported speech practice and coaching tool designed to help students improve oral presentation and speaking performance. It positions AI as a personal speech coach that can support rehearsal and iterative improvement beyond the classroom.	The proposal addresses the challenge that students often have limited opportunities for frequent, low-stakes speaking practice and individual feedback. Teachers may also find it difficult to provide timely, detailed guidance for every student's oral performance.	The proposed solution allows students to upload or record responses, after which AI evaluates both delivery and content. Students then receive instant personalised feedback and opportunities for self-correction, enabling them to practise independently at any time.	https://video.nie.edu.sg/media/WJD26-+GEMS+%E2%80%93+Guided+Evaluation+and+Mastery+of+Speech/0_czs01214
WXLC26	AI-Enabled Avatar-Based Role-Play Platform for Differentiated G3 Chinese Language Learning	Wang Luqiong; *PGDE 2025* Xu Yujing; *PGDE 2025* Lin Xiya; *PGDE 2025* Cheng Wanli; *PGDE 2025*	This project proposes an interactive, avatar-based conversational AI tool for Chinese language learning at the G3 level. It is designed to make language practice more personalised and engaging.	The proposal of the interactive and conversational AI-driven tool addresses the challenge of wide disparities in G3 students' Chinese language proficiency and logical expression skills, which limit meaningful engagement and personalised learning within a common curriculum.	The proposed solution uses AI-driven avatar role-play to adapt interactions to learner proficiency and provide conversational practice. It aims to strengthen language use, communication confidence, and thinking skills through differentiated engagement.	https://video.nie.edu.sg/media/WXLC26-+AI-Enabled+Avatar-Based+Role-Play/0_r2f2ud0c
WYCJ26	ReVision: Exploring the Use of an AI-enabled Platform for Error Analysis &	Wong Chia Ying; *PGDE 2025* Yu Jia Lin; *PGDE 2025* Chelsea Wong Jiahui; *PGDE 2025*	This project presents ReVision, an AI-enabled revision support platform that helps students learn more productively from mistakes. It is designed to make error analysis a	The proposal addresses the problem that students often make errors but lack a systematic way to reflect on them, understand why they occurred, and use them to improve. As a result, mistakes may	The proposed solution organises errors for analysis, supports revision planning, and guides students in reflecting on patterns of misunderstanding. It turns mistakes into actionable feedback that can strengthen future performance.	https://video.nie.edu.sg/media/WYCJ26-+ReVision+Exploring+the+Use+of+an+AI-enabled+Platform+for+Error+Analysis++Revision+Support/0_girylwph

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	Revision Support	Joyanne Chan Xi En; *PGDE 2025*	more structured part of the learning process.	be repeated rather than transformed into learning opportunities.		
ETC26	Aud.io: Bridging Emotion, Technology, Curriculum	Eddy Sim Chia Yaw; *PGDE 2025* Thantakorn Lakanasirorat; *PGDE 2025* Celine Yeo Shi Ning; *PGDE 2025*	This project presents Aud.io, an AI-powered educational application focused on students' emotional awareness and regulation. It combines technology, reflection, and creative expression in a learning-oriented format.	The proposal addresses the difficulty students often face in identifying and regulating emotions, which can affect wellbeing, classroom engagement, and peer relationships. Schools need tools that help students make sense of emotions in a developmentally appropriate way.	The proposed solution uses sensor-based inputs and generative AI to capture emotional states and support reflective responses. It also helps students co-create songs as a way to express mood and develop emotional literacy.	https://video.nie.edu.sg/media/ETC26-+Aud.io+Bridging+Emotion%2C+Technology%2C+Curriculum/0_unm52c5b
WWGZ26	Pinyin Pronunciation Buddy	Wang Lei; *PGDE 2025* Wan Xiaoping; *PGDE 2025* Gao Chen; *PGDE 2025* Zhuyouying; *PGDE 2025*	Pinyin Pronunciation Buddy is a child-friendly web app for Singapore Primary 1 and 2 students to practise pinyin daily through speech recognition, a simple interface, and a pet-care style game loop. It supports all 38 lessons across the four《欢乐伙伴 2.0》textbook volumes, with modes such as read aloud, listen-and-pick, and mistake review.	Many young learners in Singapore have limited Chinese exposure at home, while schools must cover a heavy pinyin curriculum in limited time. As a result, students often do not get enough individual pronunciation correction, and common errors in tones and sibilant sounds can become persistent.	The solution provides immediate AI-based pronunciation feedback, structured learning support, and gamified motivation. With visual and bilingual aids, mistake review, and a pet-care reward system, it helps children practise more consistently and build correct pronunciation over time.	https://video.nie.edu.sg/media/WWGZ26-+Pinyin+Pronunciation+Buddy/0_0hej8105
Aug 1	AI-Assisted Feedback Ecosystem for Physical Education	Dylon Koh Seng Hong; *BA/BSc 2025* Khan Jun Ming, Amos; *PGDE (PE) 2025* Ng Dekai; *PGDE (PE) 2025* Khalifa Danaswara; *NTU DSAI 2025*	This project develops an AI-assisted application for Physical Education that supports movement learning through individualised feedback. The prototype uses movement detection and feedback logic to help learners improve performance, while also supporting teachers with a more scalable way to manage observation and assessment.	The proposal addresses how in Singapore PE classrooms, students often do not receive timely, individualised, and actionable feedback on movement performance. This challenge is especially pronounced in large classes, where one teacher cannot observe every learner closely enough during a lesson.	The proposed solution is an AI-assisted Fundamental Movement Skill and Gymnastics application that provides personalised feedback and supports peer-to-peer learning. It includes features such as smart search using a RAG-lite system, pose detection for joint and posture analysis, and a teacher dashboard for organising assessment and giving timely feedback.	https://video.nie.edu.sg/media/AUG1-+AI-Assisted+Feedback+Ecosystem+for+Physical+Education/0_5ljjd2ge
Aug 2	Automated Lap Tracking & Timekeeping System for Running Fitness Tests	Kishan Mohan; *PGDE (PE) 2025* Nathaniel Tan Wei Oon; *PGDE (PE) 2025* Hafiz Bin Mohamad; *PGDE (PE) 2025*	This project presents an app-based system that automates lap tracking and timekeeping for PE running tests. It is intended to make fitness testing more efficient, accurate, and manageable for teachers.	The proposal addresses the difficulty PE teachers often face in tracking laps accurately during NAPFA runs, particularly on non-standard tracks or when supervising many students at once. Manual timing can also make it harder to maintain safety and provide timely feedback.	The proposed solution uses tablet-based computer vision and visual markers such as ArUco tags to detect laps and record times automatically. Results can then be exported for easier teacher use and assessment management.	https://video.nie.edu.sg/media/AUG2-+Automated+Lap+Tracking++Timekeeping+System+for+Running+Fitness+Tests/0_lpnwnkx5
Aug 3	explAIn	Deng Zhiwen Sherlyn; *BA/BSc 2025* Leila Meimouna Boussetta; *BA/BSc 2025*	This project introduces explAIn, an AI-powered lesson planning companion for beginning English teachers in Singapore. It is designed	The proposal addresses the heavy planning demands faced by beginning teachers, who often have limited time or support to improve their lessons through iteration. This can make it difficult to produce strong,	The proposed solution helps teachers generate and refine lesson plans, rehearse delivery, and structure reflection with mentors. Its focus is on reducing planning	https://video.nie.edu.sg/media/AUG3-+explAIn/0_1dv7qcj0

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		Quek Mei Cho Fiona (Guo Meizhu); *BA/BSc 2025* Yeo Kai Lin, Reina; *BA/BSc 2025*	to help them plan, refine, and rehearse lessons more efficiently.	MOE-aligned lessons and to make the most of mentor guidance.	burden while strengthening pedagogical quality and confidence.	
Aug 4	Big Brains, Big Gains	Clyde Wong Young Han (Wang Yanghan); *BA/BSc 2025* Lum He De; *BA/BSc 2025* Yap Earay; *BA/BSc 2025*	This project presents Big Brains, Big Gains, an AI-assisted homework support tool aimed at helping students tackle difficult questions independently. It is designed to provide accessible learning support beyond classroom hours.	The proposal addresses the challenge that students may lack time, motivation, or the right kind of personalised help when doing homework. As a result, they can get stuck quickly and lose confidence before completing the task.	The proposed solution offers round-the-clock AI assistance that can guide students through challenging work in a personalised way. It supports learner autonomy while still providing structured help when needed.	https://video.nie.edu.sg/media/AUG4-+Big+Brains+Big+Gains/0_z9aonu7b